

33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT  
SEQUENCE LISTING

<110> KUMAR, Chandrika S.

<120> METHODS AND COMPOSITIONS TARGETING TYROSINE KINASES

<130> 3491/OM582US0

<140> To be assigned

<141> Herewith

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<170> PatentIn version 3.2

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<212> DNA

<213> Homo sapiens

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## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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<210> 2
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<212> PRT
<213> Homo sapiens

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<400> 2

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Thr Thr Lys Ile Gly Gly Pro Ala Pro Ser Pro Ser Val Leu Asn Val  
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Lys Gly Leu Ala Ser Ser Arg Thr Ala Thr Val His Leu Gln Ala Leu  
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Pro Ala Ala Pro Phe Asn Ile Thr Val Thr Lys Leu Ser Ser Ser Asn  
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Ser Cys Thr Val Gln Val Thr Gln Ala Pro Gly Gly Trp Glu Val Leu  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Ala Gly Gln Gln Gly Pro Pro His Ser Arg Thr Ser Trp Val Pro Val  
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Asp Ser Val Met Ala Arg Gly Glu Pro Ala Val His Phe Arg Ala Ala  
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Arg Ser Phe Asn Arg Glu Arg Pro Glu Arg Ile Glu Ala Thr Leu Asp  
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Ser Leu Gly Ile Ser Asp Glu Leu Lys Glu Lys Leu Glu Asp Val Leu  
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Ile Pro Glu Gln Gln Phe Thr Leu Gly Arg Met Leu Gly Lys Gly Glu  
515 520 525

Phe Gly Ser Val Arg Glu Ala Gln Leu Lys Gln Glu Asp Gly Ser Phe  
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Val Lys Val Ala Val Lys Met Leu Lys Ala Asp Ile Ile Ala Ser Ser  
545 550 555 560

Asp Ile Glu Glu Phe Leu Arg Glu Ala Ala Cys Met Lys Glu Phe Asp  
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His Pro His Val Ala Lys Leu Val Gly Val Ser Leu Arg Ser Arg Ala  
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Lys Gly Arg Leu Pro Ile Pro Met Val Ile Leu Pro Phe Met Lys His  
595 600 605

Gly Asp Leu His Ala Phe Leu Leu Ala Ser Arg Ile Gly Glu Asn Pro  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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 660 665 670  
 Asp Phe Gly Leu Ser Arg Lys Ile Tyr Ser Gly Asp Tyr Tyr Arg Gln  
 675 680 685  
 Gly Cys Ala Ser Lys Leu Pro Val Lys Trp Leu Ala Leu Glu Ser Leu  
 690 695 700  
 Ala Asp Asn Leu Tyr Thr Val Gln Ser Asp Val Trp Ala Phe Gly Val  
 705 710 715 720  
 Thr Met Trp Glu Ile Met Thr Arg Gly Gln Thr Pro Tyr Ala Gly Ile  
 725 730 735  
 Glu Asn Ala Glu Ile Tyr Asn Tyr Leu Ile Gly Gly Asn Arg Leu Lys  
 740 745 750  
 Gln Pro Pro Glu Cys Met Glu Asp Val Tyr Asp Leu Met Tyr Gln Cys  
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 Asp Gly Ser Gly Met Gly Ala Val Gly Gly Thr Pro Ser Asp Cys Arg  
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 Tyr Ile Leu Thr Pro Gly Gly Leu Ala Glu Gln Pro Gly Gln Ala Glu  
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 His Gln Pro Glu Ser Pro Leu Asn Glu Thr Gln Arg Leu Leu Leu Leu  
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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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875

880

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<210> 3  
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Ala Phe Gln Val Phe Glu Glu Ala Lys Gln Gly His Leu Glu Arg Glu  
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Cys Val Glu Glu Leu Cys Ser Arg Glu Glu Ala Arg Glu Val Phe Glu  
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Asn Asp Pro Glu Thr Asp Tyr Phe Tyr Pro Arg Tyr Leu Asp Cys Ile  
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Asn Lys Tyr Gly Ser Pro Tyr Thr Lys Asn Ser Gly Phe Ala Thr Cys  
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Val Gln Asn Leu Pro Asp Gln Cys Thr Pro Asn Pro Cys Asp Arg Lys  
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Gly Thr Gln Ala Cys Gln Asp Leu Met Gly Asn Phe Phe Cys Leu Cys  
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180 185 190

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Page 7

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Ser Ser Gly Pro Val Ile Asn His Gly Met Trp Gln Thr Ile Ser Val  
 370 375 380

Glu Glu Leu Ala Arg Asn Leu Val Ile Lys Val Asn Arg Asp Ala Val  
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Met Lys Ile Ala Val Ala Gly Asp Leu Phe Gln Pro Glu Arg Gly Leu  
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Tyr His Leu Asn Leu Thr Val Gly Gly Ile Pro Phe His Glu Lys Asp  
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Leu Val Gln Pro Ile Asn Pro Arg Leu Asp Gly Cys Met Arg Ser Trp  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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&lt;400&gt; 4

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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tataatttt 3309

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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 130 135 140  
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 165 170 175  
 Asn Thr Pro Gly Ser Tyr His Cys Ser Cys Lys Asn Gly Phe Val Met  
 180 185 190  
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 Glu Cys Glu Cys Pro Glu Gly Tyr Arg Tyr Asn Leu Lys Ser Lys Ser  
 225 230 235 240  
 Cys Glu Asp Ile Asp Glu Cys Ser Glu Asn Met Cys Ala Gln Leu Cys  
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 Leu Pro Leu Asn Leu Asp Thr Lys Tyr Glu Leu Leu Tyr Leu Ala Glu  
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 Page 18

33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT.

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Ala Leu Arg Gly Gly Lys Ile Glu Val Gln Leu Lys Asn Glu His Thr  
                          355                    360                    365

Ser Lys Ile Thr Thr Gly Gly Asp Val Ile Asn Asn Gly Leu Trp Asn  
                          370                    375                    380

Met Val Ser Val Glu Glu Leu Glu His Ser Ile Ser Ile Lys Ile Ala  
                          385                    390                    395                    400

Lys Glu Ala Val Met Asp Ile Asn Lys Pro Gly Pro Leu Phe Lys Pro  
                          405                    410                    415

Glu Asn Gly Leu Leu Glu Thr Lys Val Tyr Phe Ala Gly Phe Pro Arg  
                          420                    425                    430

Lys Val Glu Ser Glu Leu Ile Lys Pro Ile Asn Pro Arg Leu Asp Gly  
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Cys Ile Arg Ser Trp Asn Leu Met Lys Gln Gly Ala Ser Gly Ile Lys  
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Glu Ile Ile Gln Glu Lys Gln Asn Lys His Cys Leu Val Thr Val Glu  
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Lys Gly Ser Tyr Tyr Pro Gly Ser Gly Ile Ala Gln Phe His Ile Asp  
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Tyr Asn Asn Val Ser Ser Ala Glu Gly Trp His Val Asn Val Thr Leu  
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Asn Ile Arg Pro Ser Thr Gly Thr Gly Val Met Leu Ala Leu Val Ser  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Lys Ala Met Lys Ala Lys Val Ala Thr Tyr Leu Gly Gly Leu Pro Asp  
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Val Pro Phe Ser Ala Thr Pro Val Asn Ala Phe Tyr Asn Gly Cys Met  
625 630 635 640

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Ser Thr Gln Thr Gln Val Pro Leu Gly Glu Asp Glu Gln Asp Asp Trp
85 90 95

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Ile Val Val Ser Gln Leu Arg Ile Thr Ser Leu Gln Leu Ser Asp Thr
100 105 110

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Gly Gln Tyr Gln Cys Leu Val Phe Leu Gly His Gln Thr Phe Val Ser
115 120 125

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Gln Pro Gly Tyr Val Gly Leu Glu Gly Leu Pro Tyr Phe Leu Glu Glu
130 135 140

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Pro Glu Asp Arg Thr Val Ala Ala Asn Thr Pro Phe Asn Leu Ser Cys
145 150 155 160

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Gln Ala Gln Gly Pro Pro Glu Pro Val Asp Leu Leu Trp Leu Gln Asp
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Ala Val Pro Leu Ala Thr Ala Pro Gly His Gly Pro Gln Arg Ser Leu
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His Val Pro Gly Leu Asn Lys Thr Ser Ser Phe Ser Cys Glu Ala His
      195                      200                      205

Asn Ala Lys Gly Val Thr Thr Ser Arg Thr Ala Thr Ile Thr Val Leu
      210                      215                      220

Pro Gln Gln Pro Arg Asn Leu His Leu Val Ser Arg Gln Pro Thr Glu
      225                      230                      235                      240

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr
      245                      250                      255

His Cys Thr Leu Gln Ala Val Leu Ser Asp Asp Gly Met Gly Ile Gln
      260                      265                      270

Ala Gly Glu Pro Asp Pro Pro Glu Glu Pro Leu Thr Ser Gln Ala Ser
      275                      280                      285

Val Pro Pro His Gln Leu Arg Leu Gly Ser Leu His Pro His Thr Pro
      290                      295                      300

Tyr His Ile Arg Val Ala Cys Thr Ser Ser Gln Gly Pro Ser Ser Trp
      305                      310                      315                      320

Thr His Trp Leu Pro Val Glu Thr Pro Glu Gly Val Pro Leu Gly Pro
      325                      330                      335

Pro Glu Asn Ile Ser Ala Thr Arg Asn Gly Ser Gln Ala Phe Val His
      340                      345                      350

Trp Gln Glu Pro Arg Ala Pro Leu Gln Gly Thr Leu Leu Gly Tyr Arg
      355                      360                      365

Leu Ala Tyr Gln Gly Gln Asp Thr Pro Glu Val Leu Met Asp Ile Gly
      370                      375                      380

Leu Arg Gln Glu Val Thr Leu Glu Leu Gln Gly Asp Gly Ser Val Ser
      385                      390                      395                      400

Asn Leu Thr Val Cys Val Ala Ala Tyr Thr Ala Ala Gly Asp Gly Pro
      Page 24

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT  
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Trp Ser Leu Pro Val Pro Leu Glu Ala Trp Arg Pro Val Lys Glu Pro  
420 425 430

Ser Thr Pro Ala Phe Ser Trp Pro Trp Trp Tyr Val Leu Leu Gly Ala  
435 440 445

Val Val Ala Ala Ala Cys Val Leu Ile Leu Ala Leu Phe Leu Val His  
450 455 460

Arg Arg Lys Lys Glu Thr Arg Tyr Gly Glu Val Phe Glu Pro Thr Val  
465 470 475 480

Glu Arg Gly Glu Leu Val Val Arg Tyr Arg Val Arg Lys Ser Tyr Ser  
485 490 495

Arg Arg Thr Thr Glu Ala Thr Leu Asn Ser Leu Gly Ile Ser Glu Glu  
500 505 510

Leu Lys Glu Lys Leu Arg Asp Val Met Val Asp Arg His Lys Val Ala  
515 520 525

Leu Gly Lys Thr Leu Gly Glu Gly Glu Phe Gly Ala Val Met Glu Gly  
530 535 540

Gln Leu Asn Gln Asp Asp Ser Ile Leu Lys Val Ala Val Lys Thr Met  
545 550 555 560

Lys Ile Ala Ile Cys Thr Arg Ser Glu Leu Glu Asp Phe Leu Ser Glu  
565 570 575

Ala Val Cys Met Lys Glu Phe Asp His Pro Asn Val Met Arg Leu Ile  
580 585 590

Gly Val Cys Phe Gln Gly Ser Glu Arg Glu Ser Phe Pro Ala Pro Val  
595 600 605

Val Ile Leu Pro Phe Met Lys His Gly Asp Leu His Ser Phe Leu Leu  
610 615 620

Tyr Ser Arg Leu Gly Asp Gln Pro Val Tyr Leu Pro Thr Gln Met Leu  
625 630 635 640

Val Lys Phe Met Ala Asp Ile Ala Ser Gly Met Glu Tyr Leu Ser Thr  
645 650 655

# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Met Leu Asn  
660 665 670

Glu Asn Met Ser Val Cys Val Ala Asp Phe Gly Leu Ser Lys Lys Ile  
675 680 685

Tyr Asn Gly Asp Tyr Tyr Arg Gln Gly Arg Ile Ala Lys Met Pro Val  
690 695 700

Lys Trp Ile Ala Ile Glu Ser Leu Ala Asp Arg Val Tyr Thr Ser Lys  
705 710 715 720

Ser Asp Val Trp Ser Phe Gly Val Thr Met Trp Glu Ile Ala Thr Arg  
725 730 735

Gly Gln Thr Pro Tyr Pro Gly Val Glu Asn Ser Glu Ile Tyr Asp Tyr  
740 745 750

Leu Arg Gln Gly Asn Arg Leu Lys Gln Pro Ala Asp Cys Leu Asp Gly  
755 760 765

Leu Tyr Ala Leu Met Ser Arg Cys Trp Glu Leu Asn Pro Gln Asp Arg  
770 775 780

Pro Ser Phe Thr Glu Leu Arg Glu Asp Leu Glu Asn Thr Leu Lys Ala  
785 790 795 800

Leu Pro Pro Ala Gln Glu Pro Asp Glu Ile Leu Tyr Val Asn Met Asp  
805 810 815

Glu Gly Gly Gly Tyr Pro Glu Pro Pro Gly Ala Ala Gly Gly Ala Asp  
820 825 830

Pro Pro Thr Gln Pro Asp Pro Lys Asp Ser Cys Ser Cys Leu Thr Ala  
835 840 845

Ala Glu Val His Pro Ala Gly Arg Tyr Val Leu Cys Pro Ser Thr Thr  
850 855 860

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865 870 875 880

Gln Glu Asp Gly Ala  
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<212> DNA

## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

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## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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<210> 33
<211> 894
<212> PRT
<213> Homo sapiens

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<400> 33

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Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn Ile Thr Gly Ala Arg
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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65 70 75 80

Ser Thr Gln Thr Gln Val Pro Leu Gly Glu Asp Glu Gln Asp Asp Trp  
85 90 95

Ile Val Val Ser Gln Leu Arg Ile Thr Ser Leu Gln Leu Ser Asp Thr  
100 105 110

Gly Gln Tyr Gln Cys Leu Val Phe Leu Gly His Gln Thr Phe Val Ser  
115 120 125

Gln Pro Gly Tyr Val Gly Leu Glu Gly Leu Pro Tyr Phe Leu Glu Glu  
130 135 140

Pro Glu Asp Arg Thr Val Ala Ala Asn Thr Pro Phe Asn Leu Ser Cys  
145 150 155 160

Gln Ala Gln Gly Pro Pro Glu Pro Val Asp Leu Leu Trp Leu Gln Asp  
165 170 175

Ala Val Pro Leu Ala Thr Ala Pro Gly His Gly Pro Gln Arg Ser Leu  
180 185 190

His Val Pro Gly Leu Asn Lys Thr Ser Ser Phe Ser Cys Glu Ala His  
195 200 205

Asn Ala Lys Gly Val Thr Thr Ser Arg Thr Ala Thr Ile Thr Val Leu  
210 215 220

Pro Gln Gln Pro Arg Asn Leu His Leu Val Ser Arg Gln Pro Thr Glu  
225 230 235 240

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr  
245 250 255

His Cys Thr Leu Gln Ala Val Leu Ser Asp Asp Gly Met Gly Ile Gln  
260 265 270

Ala Gly Glu Pro Asp Pro Pro Glu Glu Pro Leu Thr Ser Gln Ala Ser  
275 280 285

Val Pro Pro His Gln Leu Arg Leu Gly Ser Leu His Pro His Thr Pro  
Page 30

33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

290

295

300

Tyr His Ile Arg Val Ala Cys Thr Ser Ser Gln Gly Pro Ser Ser Trp  
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325 330 335

Pro Glu Asn Ile Ser Ala Thr Arg Asn Gly Ser Gln Ala Phe Val His  
340 345 350

Trp Gln Glu Pro Arg Ala Pro Leu Gln Gly Thr Leu Leu Gly Tyr Arg  
355 360 365

Leu Ala Tyr Gln Gly Gln Asp Thr Pro Glu Val Leu Met Asp Ile Gly  
370 375 380

Leu Arg Gln Glu Val Thr Leu Glu Leu Gln Gly Asp Gly Ser Val Ser  
385 390 395 400

Asn Leu Thr Val Cys Val Ala Ala Tyr Thr Ala Ala Gly Asp Gly Pro  
405 410 415

Trp Ser Leu Pro Val Pro Leu Glu Ala Trp Arg Pro Gly Gln Ala Gln  
420 425 430

Pro Val His Gln Leu Val Lys Glu Pro Ser Thr Pro Ala Phe Ser Trp  
435 440 445

Pro Trp Trp Tyr Val Leu Leu Gly Ala Val Val Ala Ala Ala Cys Val  
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Leu Ile Leu Ala Leu Phe Leu Val His Arg Arg Lys Lys Glu Thr Arg  
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485 490 495

Arg Tyr Arg Val Arg Lys Ser Tyr Ser Arg Arg Thr Thr Glu Ala Thr  
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Leu Asn Ser Leu Gly Ile Ser Glu Glu Leu Lys Glu Lys Leu Arg Asp  
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Val Met Val Asp Arg His Lys Val Ala Leu Gly Lys Thr Leu Gly Glu  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Ile Leu Lys Val Ala Val Lys Thr Met Lys Ile Ala Ile Cys Thr Arg  
565 570 575

Ser Glu Leu Glu Asp Phe Leu Ser Glu Ala Val Cys Met Lys Glu Phe  
580 585 590

Asp His Pro Asn Val Met Arg Leu Ile Gly Val Cys Phe Gln Gly Ser  
595 600 605

Glu Arg Glu Ser Phe Pro Ala Pro Val Val Ile Leu Pro Phe Met Lys  
610 615 620

His Gly Asp Leu His Ser Phe Leu Leu Tyr Ser Arg Leu Gly Asp Gln  
625 630 635 640

Pro Val Tyr Leu Pro Thr Gln Met Leu Val Lys Phe Met Ala Asp Ile  
645 650 655

Ala Ser Gly Met Glu Tyr Leu Ser Thr Lys Arg Phe Ile His Arg Asp  
660 665 670

Leu Ala Ala Arg Asn Cys Met Leu Asn Glu Asn Met Ser Val Cys Val  
675 680 685

Ala Asp Phe Gly Leu Ser Lys Lys Ile Tyr Asn Gly Asp Tyr Tyr Arg  
690 695 700

Gln Gly Arg Ile Ala Lys Met Pro Val Lys Trp Ile Ala Ile Glu Ser  
705 710 715 720

Leu Ala Asp Arg Val Tyr Thr Ser Lys Ser Asp Val Trp Ser Phe Gly  
725 730 735

Val Thr Met Trp Glu Ile Ala Thr Arg Gly Gln Thr Pro Tyr Pro Gly  
740 745 750

Val Glu Asn Ser Glu Ile Tyr Asp Tyr Leu Arg Gln Gly Asn Arg Leu  
755 760 765

Lys Gln Pro Ala Asp Cys Leu Asp Gly Leu Tyr Ala Leu Met Ser Arg  
770 775 780

Cys Trp Glu Leu Asn Pro Gln Asp Arg Pro Ser Phe Thr Glu Leu Arg  
785 790 795 800



# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Glu Asp Leu Glu Asn Thr Leu Lys Ala Leu Pro Pro Ala Gln Glu Pro  
805 810 815

Asp Glu Ile Leu Tyr Val Asn Met Asp Glu Gly Gly Gly Tyr Pro Glu  
820 825 830

Pro Pro Gly Ala Ala Gly Gly Ala Asp Pro Pro Thr Gln Pro Asp Pro  
835 840 845

Lys Asp Ser Cys Ser Cys Leu Thr Ala Ala Glu Val His Pro Ala Gly  
850 855 860

Arg Tyr Val Leu Cys Pro Ser Thr Thr Pro Ser Pro Ala Gln Pro Ala  
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Asp Arg Gly Ser Pro Ala Ala Pro Gly Gln Glu Asp Gly Ala  
885 890

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<213> Homo sapiens

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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aaaaactctt	agaaagtgtg	cctgacgttc	ggaaccaagc	agacgttatt	tacgtcaata	2760
cacagttgct	ggagagctct	gagggcctgg	cccagggccc	cacccttgct	ccactggact	2820
tgaacatcga	ccctgactct	ataattgcct	cctgcactcc	ccgcgctgcc	atcagtggtg	2880

# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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tcacagcaga agttcatgac agcaaacctc atgaaggacg gtacatcctg aatgggggca 2940
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aaatagga 3608

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<210> 35
<211> 999
<212> PRT
<213> Homo sapiens

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<400> 35

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Met Gly Pro Ala Pro Leu Pro Leu Leu Leu Gly Leu Phe Leu Pro Ala
1          5          10          15

```

```

Leu Trp Arg Arg Ala Ile Thr Glu Ala Arg Glu Glu Ala Lys Pro Tyr
20          25          30

```

```

Pro Leu Phe Pro Gly Pro Phe Pro Gly Ser Leu Gln Thr Asp His Thr
35          40          45

```

```

Pro Leu Leu Ser Leu Pro His Ala Ser Gly Tyr Gln Pro Ala Leu Met
50          55          60

```

```

Phe Ser Pro Thr Gln Pro Gly Arg Pro His Thr Gly Asn Val Ala Ile
65          70          75          80

```

```

Pro Gln Val Thr Ser Val Glu Ser Lys Pro Leu Pro Pro Leu Ala Phe
85          90          95

```

```

Lys His Thr Val Gly His Ile Ile Leu Ser Glu His Lys Gly Val Lys
100         105         110

```

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Phe Asn Cys Ser Ile Asn Val Pro Asn Ile Tyr Gln Asp Thr Thr Ile
    115                      120                      125

Ser Trp Trp Lys Asp Gly Lys Glu Leu Leu Gly Gly His His Arg Ile
    130                      135                      140

Thr Gln Phe Tyr Pro Asp Asp Glu Val Thr Ala Ile Ile Ala Ser Phe
    145                      150                      155                      160

Ser Ile Thr Ser Val Gln Arg Ser Asp Asn Gly Ser Tyr Ile Cys Lys
                      165                      170                      175

Met Lys Ile Asn Asn Glu Glu Ile Val Ser Asp Pro Ile Tyr Ile Glu
                      180                      185                      190

Val Gln Gly Leu Pro His Phe Thr Lys Gln Pro Glu Ser Met Asn Val
    195                      200                      205

Thr Arg Asn Thr Ala Phe Asn Leu Thr Cys Gln Ala Val Gly Pro Pro
    210                      215                      220

Glu Pro Val Asn Ile Phe Trp Val Gln Asn Ser Ser Arg Val Asn Glu
    225                      230                      235                      240

Gln Pro Glu Lys Ser Pro Gly Val Leu Thr Val Pro Gly Leu Thr Glu
                      245                      250                      255

Met Ala Val Phe Ser Cys Glu Ala His Asn Asp Lys Gly Leu Thr Val
    260                      265                      270

Ser Gln Gly Val Gln Ile Asn Ile Lys Ala Ile Pro Ser Pro Pro Thr
    275                      280                      285

Glu Val Ser Ile Arg Asn Ser Thr Ala His Ser Ile Leu Ile Ser Trp
    290                      295                      300

Val Pro Gly Phe Asp Gly Tyr Ser Pro Phe Arg Asn Cys Ser Ile Gln
    305                      310                      315                      320

Val Lys Glu Ala Asp Pro Leu Gly Asn Gly Ser Val Met Ile Phe Asn
    325                      330                      335

Thr Ser Ala Leu Pro His Leu Tyr Gln Ile Lys Gln Leu Gln Ala Leu
    340                      345                      350

Ala Asn Tyr Ser Ile Gly Val Ser Cys Met Asn Glu Ile Gly Trp Ser
    355                      360                      365

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Ala Val Ser Pro Trp Ile Leu Ala Ser Thr Thr Glu Gly Ala Pro Ser  
370 375 380

Val Ala Pro Leu Asn Val Thr Val Phe Leu Asn Glu Ser Ser Asp Asn  
385 390 395 400

Val Asp Ile Arg Trp Met Lys Pro Pro Thr Lys Gln Gln Asp Gly Glu  
405 410 415

Leu Val Gly Tyr Arg Ile Ser His Val Trp Gln Ser Ala Gly Ile Ser  
420 425 430

Lys Glu Leu Leu Glu Glu Val Gly Gln Asn Gly Ser Arg Ala Arg Ile  
435 440 445

Ser Val Gln Val His Asn Ala Thr Cys Thr Val Arg Ile Ala Ala Val  
450 455 460

Thr Arg Gly Gly Val Gly Pro Phe Ser Asp Pro Val Lys Ile Phe Ile  
465 470 475 480

Pro Ala His Gly Trp Val Asp Tyr Ala Pro Ser Ser Thr Pro Ala Pro  
485 490 495

Gly Asn Ala Asp Pro Val Leu Ile Ile Phe Gly Cys Phe Cys Gly Phe  
500 505 510

Ile Leu Ile Gly Leu Ile Leu Tyr Ile Ser Leu Ala Ile Arg Lys Arg  
515 520 525

Val Gln Glu Thr Lys Phe Gly Asn Ala Phe Thr Glu Glu Asp Ser Glu  
530 535 540

Leu Val Val Asn Tyr Ile Ala Lys Lys Ser Phe Cys Arg Arg Ala Ile  
545 550 555 560

Glu Leu Thr Leu His Ser Leu Gly Val Ser Glu Glu Leu Gln Asn Lys  
565 570 575

Leu Glu Asp Val Val Ile Asp Arg Asn Leu Leu Ile Leu Gly Lys Ile  
580 585 590

Leu Gly Glu Gly Glu Phe Gly Ser Val Met Glu Gly Asn Leu Lys Gln  
595 600 605

Glu Asp Gly Thr Ser Leu Lys Val Ala Val Lys Thr Met Lys Leu Asp  
610 615 620

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Asn Ser Ser His Arg Glu Ile Glu Glu Phe Leu Ser Glu Ala Ala Cys
625                      630                      635                      640

Met Lys Asp Phe Ser His Pro Asn Val Ile Arg Leu Leu Gly Val Cys
                      645                      650                      655

Ile Glu Met Ser Ser Gln Gly Ile Pro Lys Pro Met Val Ile Leu Pro
                      660                      665                      670

Phe Met Lys Tyr Gly Asp Leu His Thr Tyr Leu Leu Tyr Ser Arg Leu
                      675                      680                      685

Glu Thr Gly Pro Lys His Ile Pro Leu Gln Thr Leu Leu Lys Phe Met
690                      695                      700

Val Asp Ile Ala Leu Gly Met Glu Tyr Leu Ser Asn Arg Asn Phe Leu
705                      710                      715                      720

His Arg Asp Leu Ala Ala Arg Asn Cys Met Leu Arg Asp Asp Met Thr
                      725                      730                      735

Val Cys Val Ala Asp Phe Gly Leu Ser Lys Lys Ile Tyr Ser Gly Asp
                      740                      745                      750

Tyr Tyr Arg Gln Gly Arg Ile Ala Lys Met Pro Val Lys Trp Ile Ala
755                      760                      765

Ile Glu Ser Leu Ala Asp Arg Val Tyr Thr Ser Lys Ser Asp Val Trp
770                      775                      780

Ala Phe Gly Val Thr Met Trp Glu Ile Arg Thr Arg Gly Met Thr Pro
785                      790                      795                      800

Tyr Pro Gly Val Gln Asn His Glu Met Tyr Asp Tyr Leu Leu His Gly
805                      810                      815

His Arg Leu Lys Gln Pro Glu Asp Cys Leu Asp Glu Leu Tyr Glu Ile
820                      825                      830

Met Tyr Ser Cys Trp Arg Thr Asp Pro Leu Asp Arg Pro Thr Phe Ser
835                      840                      845

Val Leu Arg Leu Gln Leu Glu Lys Leu Leu Glu Ser Leu Pro Asp Val
850                      855                      860

Arg Asn Gln Ala Asp Val Ile Tyr Val Asn Thr Gln Leu Leu Glu Ser

```

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865

870

875

880

Ser Glu Gly Leu Ala Gln Gly Pro Thr Leu Ala Pro Leu Asp Leu Asn  
885 890 895

Ile Asp Pro Asp Ser Ile Ile Ala Ser Cys Thr Pro Arg Ala Ala Ile  
900 905 910

Ser Val Val Thr Ala Glu Val His Asp Ser Lys Pro His Glu Gly Arg  
915 920 925

Tyr Ile Leu Asn Gly Gly Ser Glu Glu Trp Glu Asp Leu Thr Ser Ala  
930 935 940

Pro Ser Ala Ala Val Thr Ala Glu Lys Asn Ser Val Leu Pro Gly Glu  
945 950 955 960

Arg Leu Val Arg Asn Gly Val Ser Trp Ser His Ser Ser Met Leu Pro  
965 970 975

Leu Gly Ser Ser Leu Pro Asp Glu Leu Leu Phe Ala Asp Asp Ser Ser  
980 985 990

Glu Gly Ser Glu Val Leu Met  
995